Oil: the continued importance a highly politicized commodity

Ruloff, D

Other titles: Erdöl: Andauernde Bedeutung einer politisierten Ressource

Reuss Private

PERSPECTIVES

For clients and partners of Reuss Private

Issue 4 | April 2010

You don't have to follow every trend

Dear Reader

If the last twenty years have shown us anything, it's that the world of investment is not immune to fashions. In the 1990s the future was supposed to lie in the rapidly growing emerging markets, until the Asia crisis brought a temporary end to the boom in 1997. Then came the New Economy, with the promise of fat gains on IT and Internet stocks, until the spectacular burst of the dotcom bubble. The next great phenomenon was structured products, a must-have fashion accessory even though most investors didn't really even understand how they worked. Then the real estate bubble burst in the US, and even big banks were caught with their pants down. The current favorites are "green" companies, especially ones producing "clean" energy, which offer investors a clear conscience in addition to financial rewards. Just another trend? In this issue of Perspectives, Dieter Ruloff, Professor of International Relations at the University of Zurich, explains how fossil fuels, and in particular oil, will continue to be the backbone of the energy supply for many years to come. This has serious implications, because the price of crude is closely linked to the political situation in oil exporting countries. With demand set to increase substantially, investing in energy is an attractive long-term proposition. But given the imponderables, it's a decision that has to be thought through carefully. People who follow fashion blindly risk becoming its victim.

Dr. Adriano B. Lucatelli, Managing Partner

Oil: the continued importance of a highly politicized commodity

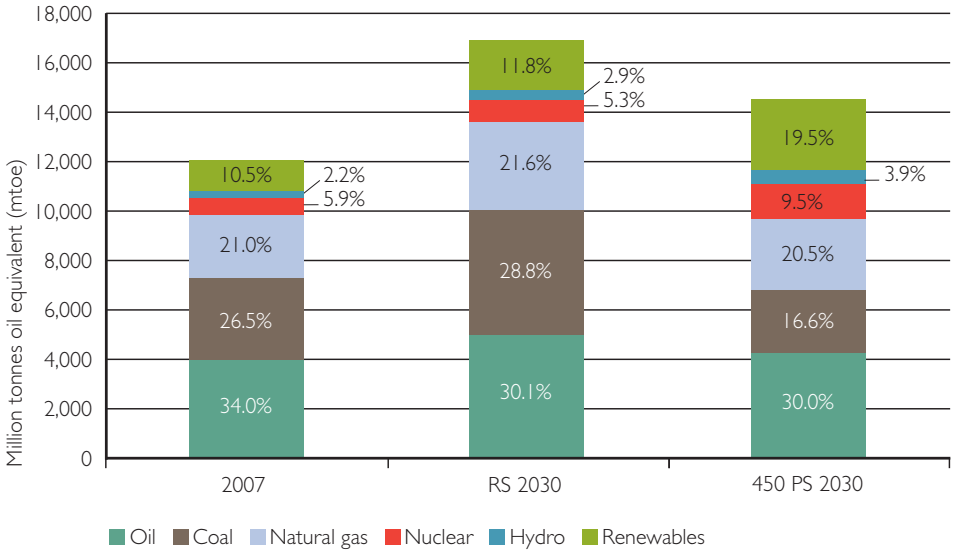
By Dieter Ruloff

All the talk at the WEF at the end of January was of clean, renewable energy. The race to develop "green" technologies, apparently, is set to be the dominant development over the next two decades. Whoever wins this race, it is said – Asia or the West – will revolutionize the energy markets, make huge profits, and secure their own prosperity. But the statistics published by the International Energy Agency (IEA) paint a different picture: people's appetite for energy is increasing, but for a long time to come the job of supplying basic requirements – particularly in the large, rapidly growing emerging economies – will fall to oil, coal, and natural gas. Fossil fuels might be finite, but contrary to what many people believe, the world still has more than enough at its disposal. Coal is something that all major industrial nations have themselves, or can buy cheaply from reliable sources. Natural gas is supplied across borders on the basis of long-term contracts. Oil is a commodity which will not be replaced in the near future, and which has to be procured on the world market. The only question is: at what price? The answer is clear: the price of oil is increasing, and, even more significantly, it is volatile. Thanks to the political pitfalls and rivalries involved, the oil market is unpredictable, prices are volatile, and poses risks for both investors and consumers.

Fossil fuels, in other words oil, natural gas, and coal, are finite resources. So in the long term clean renewables will have to play a larger part in the supply of energy – especially if you consider the environmental imperative of getting to grips with climate change. Resources such as hydropower, solar and wind energy, tidal power, geothermal energy, and biomass are gaining in importance. It's clear that whoever gets ahead of the game here will have a massive advantage. But in the medium term there's no way around conventional fuels. Under its RS 2030 reference scenario, where the International Energy Agency extrapolates on the basis of current developments, in 2030 green energy will account for around the same share of global consumption as in 2007, i.e. somewhere between 11% and 12%. In other words by 2030, any progress made on the green energy front will simply have been swallowed up by an anticipated increase of around 40% in global energy demand, primarily in emerging nations.

Radical intervention will be necessary if the world wants to limit the greenhouse effect to 2°C, as resolved at the Copenhagen climate conference. According to the IEA, the options would be to use much less coal, make much more rapid progress on renewables, much greater use of nuclear energy (!), or build more hydroelectric dams. This would be the only way of limiting the increase in CO_2 emissions (to around 450 ppm CO_2-eq) to achieve the 2 degree target. The IEA's very optimistic 450 Policy Scenario (450 PS 2030) would require the rapid development of effective global rules on reducing carbon emissions. And it would also be very expensive indeed, involving an extra USD 10 trillion in addition to the already huge and rapidly growing investment required. It remains to be seen whether the world can pull itself together for such a gargantuan joint effort. The more im-

Global primary energy supply



Source: Key World Energy Statistics 2009 published by the International Energy Agency (IEA)

portant point here is that in both the IEA's scenarios, oil will account for around 30% of energy use. So even if we were to adopt a rigorously green strategy, we would need more oil in future. The global economy is still driven by oil. This applies particularly to the rapidly growing emerging markets India and China, which are not yet fully motorized, but will be.

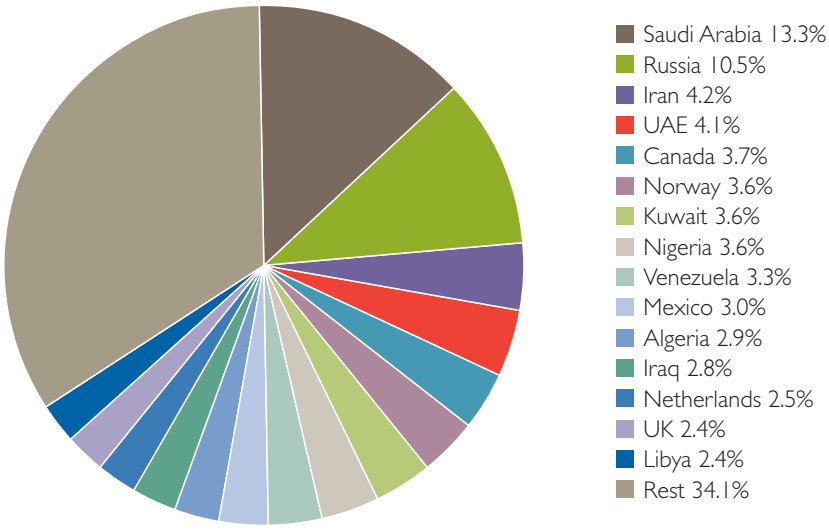
Main problems of oil supply geopolitical rather than geological

There's no way around oil, and there won't be for a long time to come. But there are problems when it comes to accessing, producing and transporting the commodity. Firstly, the fact that a large part of the world's crude reserves are a long way from main consumers, and often in remote, inhospitable areas of the world, creates problems in terms of extracting and transporting the oil. Secondly, these are often crisis regions, which makes producing and delivering the oil a riskier and less reliable undertaking. Thirdly, there is political conflict between some producers and major consumers. Fourthly, but not insignificantly, most producers and suppliers have dramatically different ideas about what constitutes the best arrangements for supplying oil: while classic importing nations such as the US, EU and Japan have opted for supply through private companies, who for their part procure their oil on the global market, the producers mostly favor state-owned oil companies working on the basis of long-term, bilateral supply and purchase agreements. So oil is a highly politicized commodity. But while the geology is often difficult and the geography frequently a challenge, the geopolitics are even more important: who has how much oil and where, and what do they want in return for it, in monetary or political currency?

Middle East: hotbed of crisis and the world's most important oil-producing region

As luck would have it, the most import exporters of oil, and the world's largest reserves, are to be found in the crisis-ridden Middle East. Every time the situation in the region deteriorates, there is an immediate impact on the global oil price. Saudi Arabia is still the world's biggest oil exporter, as well as boasting the largest reserves. The kingdom derives a great deal of its stability from the United States, either externally, such as in the 1991 Gulf War, or internally – with the necessary discretion – via the war on terrorism. Despite all the rhetoric on democracy, the United States traditionally has friendly relations with the ruling Saudi families. For its part, Saudi Arabia supports the Palestinians in their conflict with Israel, but this has never really affected relations with the US, Israel's closest ally. Oil – assuring exports for the Saudis, and securing supply to the US – is a much higher priority, and the cement that bonds these two unlikely partners together. Saudi Arabia is also the country that sets the tone within OPEC, exerting a moderating influence on the oil cartel's policy. But in line with the trend, the Saudis are also increasingly turning to the East now that China has taken over from the US as the most important importer of their oil. But while China brings stable demand for oil, it cannot replace the military protection afforded by the United States. Nevertheless, geopolitics in the Gulf are now also in flux.

Shares of world oil exports (2007/08)



Source: IEA

Kuwait and the Gulf Emirates – rich, ambitious, but in many respects fragile small states – are prospering behind the firewall of US military presence. Without oil and the protective shield offered by the Americans, they would have a hard time in the volatile environment of the Middle East. Kuwait experienced this first-hand when it was invaded by Iraq in 1990. The US has just installed a missile defense system on the Gulf, intended to protect the Emirates against the threat of Iran.

Iran, the region's second-largest producer of oil, is in hot dispute with the international community over its nuclear program. If Iran continues with its stalling tactics to buy time for its own nuclear program, a "surgical" military strike against its nuclear installations is looking increasingly likely. In this event, Iran has already announced countermeasures such as closing the Strait of Hormuz, the route taken by around 90% of oil exported by states around the Gulf. However, it is doubtful whether it will ever come to that. For one thing there is skepticism as to Iran's ability to enforce a blockade once imposed. And for another, Iran would be shooting itself in the foot, because a blockade would also put an end to its own most important source of foreign currency. This would hit Ahmadinejad's regime, which depends on the pecuniary satisfaction of its clientele, where it hurts most. On the other hand, the conflict with the West has opened up opportunities for China to do oil business with Iran. Here "political" currency is also changing hands: so far, China's veto on the security council has prevented tough UN sanctions against Iran.

Tough situation in Iraq

Before 1980, before it suffered huge setbacks in the form of three Gulf wars and UN sanctions, Iraq was one of the world's leading exporters of oil. A more stable situation is now enabling Iraq to catch up with the top ten exporters again. Even so, with the country's oil production still around only 50% of its 1980 level, Iraq still has enormous potential if there were a return to stability. Oil reserves of around 115 billion barrels reported by the USGS (the US Geological Survey) and the International Energy Agency are a very conservative estimate based on geological data largely going back thirty years. There are thought to be reserves of another 45 to 100 billion barrels under the country's western and southern deserts. If these estimates are confirmed, Iraq will have the second-largest oil reserves in the world after Saudi Arabia. Foreign oil companies are expressing growing interest in Iraq. Given the poor security situation, the auction of oil production licenses in June 2009 was a mistake; only BP PLC and its partner China National Petroleum Corp. (CNPC) acquired rights. A further auction in December 2009 went better. Malaysian company Petronas, Angolan operator Sonangol and Russian player Lukoil all bid successfully, while US companies left the auction empty-handed. So if the 2003 Gulf War had been designed to ensure American access to Iraqi oil reserves, it would have been seen as a failure in these terms as well.

Russia's ambitions as an oil power – and their limits

In recent years Russia has advanced to become the second-most important player in the oil business. But even though it heads the rankings with production of around 10 million barrels of crude a day, only around 7 million are exported. The rest is required by Russia itself, and this demand is on the increase. In terms of reserves, the country ranks only eighth after the Gulf Emirates; on the other hand, Russia is a huge country which, like Iraq, probably still has very large reserves that have not yet been discovered using conventional technology, but which are likely to emerge once more advanced methods are available. An interesting factor in this respect is the Arctic, whose oil reserves will get easier and easier to access as global warming continues. Russia has already staked its claim: a Russian submarine has planted the country's flag on the bed of the northern Arctic Ocean.

Russia's biggest problem is transporting oil and gas to end-users. The states of the former Soviet Union sit like a great defensive wall between Russia and its European customers. These countries, which also want a slice of the business, have so far been kept sweet with cheap deliveries of oil and gas. But Russia is increasingly demanding market prices, which has led to resistance. The conflict with Ukraine escalated in the winter of 2008-09 until deliveries of natural gas were interrupted. Russia hopes that the Nord Stream pipeline, which will bypass unloved neighbors Ukraine and Poland to transport up to 55 billion cubic meters of gas a year via the Baltic Sea, will remove some of the pressure. The country is increasingly relying on the Baltic sea route to ship exports of oil to the West.

Two "natural" customers for Russian oil would be China and Japan to the east. But this would require pipelines to the Russian Pacific ports or direct to China. After fourteen years of negotiation, in early 2009 construction began on a 4,000 km pipeline designed to link the port of Nakhodka on the Sea of Japan with the oilfields in western Siberia. There is a spur of the pipeline planned for Daqing in China. The project is being funded by a Chinese loan of USD 25 billion. In return, Russia guarantees to supply China with crude until 2030. The option of taking a shortcut through Chinese territory was rejected; the entire main pipeline will run through Russian territory. After all, trust is good, control better.

Emerging oil states on the Caspian Sea

Until now Russia has controlled the Caspian Region's oil exports, a legacy of the communist past. Azerbaijan had to export almost exclusively via Russian pipelines. But the Baku-Tbilisi-Ceyhan pipeline, resisted by Russia but completed in 2005, now enables Caspian oil to be transported to the Turkish Mediterranean through Georgian territory, thus avoiding Russia. The Central Asian States find themselves in a similar situation to that previously faced by Azerbaijan – particularly Kazakhstan, the region's largest oil producer with exports of around 1.3 million barrels a day and, according to foreign estimates, reserves of some 30 billion barrels. The problem is transporting the oil to the world's markets. Until now the region has been reliant on Russia. There are plans to create an undersea connection running through the Caspian Sea to the Baku-Tbilisi-Ceyhan pipeline. A 3,000 km-long pipeline link with China was commissioned in summer 2009.

Supply situation for USA relatively secure

At almost 20 million barrels a day, or nearly one quarter of worldwide consumption, the largest consumer of oil in the world is the United States. At first glance this figure might give pause for thought. But you have to realize that the US still manages to cover around 44% of its requirements with home-produced oil, and imports most of the rest from its dependable neighbors Canada and Mexico, and old ally Saudi Arabia. Despite all the rhetoric from Venezuela's President Chavez, his country is the fourth-largest supplier of oil to the United States, obviously adhering to the old Roman motto that money doesn't stink. Overall there is a broad consensus in the US that the country's reliance on imported oil, particularly from the Middle East, should be reduced. But there is little consensus on how to achieve this. Conservatives want to move ahead with exploiting home-grown reserves, offshore, in Alaska, and oil shale reserves, which have so far hardly been touched. People further to the left of the political spectrum would prefer the US to adopt a different, environmental course taking it as far away from fossil fuels as possible. But there is still a very long way to go on this path.

The real challenge: China's growing hunger for energy

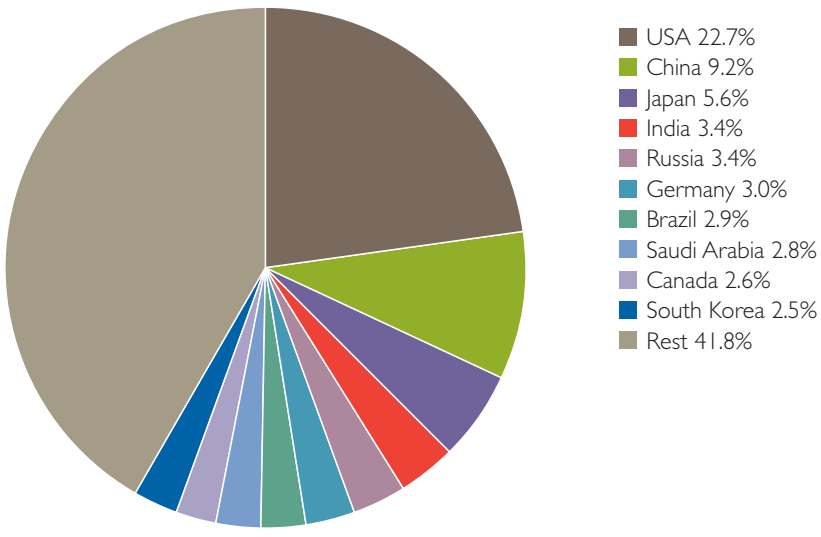
China has become the world's second-largest consumer of oil, but still produces almost half its needs itself. However, at around 16 billion barrels, China's reserves are relatively modest, and a massive increase in demand for oil is on the cards. The IEA predicts that Chinese oil imports will have increased fourfold by 2030. Consequently, Chinese foreign policy involves currying favor with all oil producers, including those that the old established industrialized nations are avoiding for reasons of ideology, human rights or social conflict. But China has even started doing business with Africa's largest oil exporters: Angola since 2004, and Nigeria since 2006. The Americans, Europeans and Japanese appear to be irritated by these moves by China, and especially by its strategy of pursuing exclusive, long-term contracts.

But in actual fact the biggest potential reserves are right on China's doorstep: in the waters around the Spratly Islands, an archipelago of up to 100 atolls in the South China Sea, there are oil reserves of as much as 300 billion barrels. But the question of who controls the area is controversial. China, Vietnam and Taiwan claim full sovereignty, while other countries in the region such as Brunei, the Philippines and Malaysia claim sovereignty over parts of it. If the right to exploit resources there is at stake, confrontation is surely on the cards. For this reason, China is investing a lot of money in building up a navy.

Europe and Japan: dependent on the world market

Europe and Japan are more dependent on a functioning world oil market than the United States. The European Union uses around 14.5 million barrels a day, but does not produce even a fifth of this itself. Norway, whose citizens have twice voted not to join the EU because of the country's oil and fishing interests, is the world's sixth-largest oil exporter and a close, reliable supplier to the EU. Japan, on the other hand, is completely reliant on imports for its oil.

Breakdown of global oil consumption (2008)



Source: IEA

Volatility as the result of politics

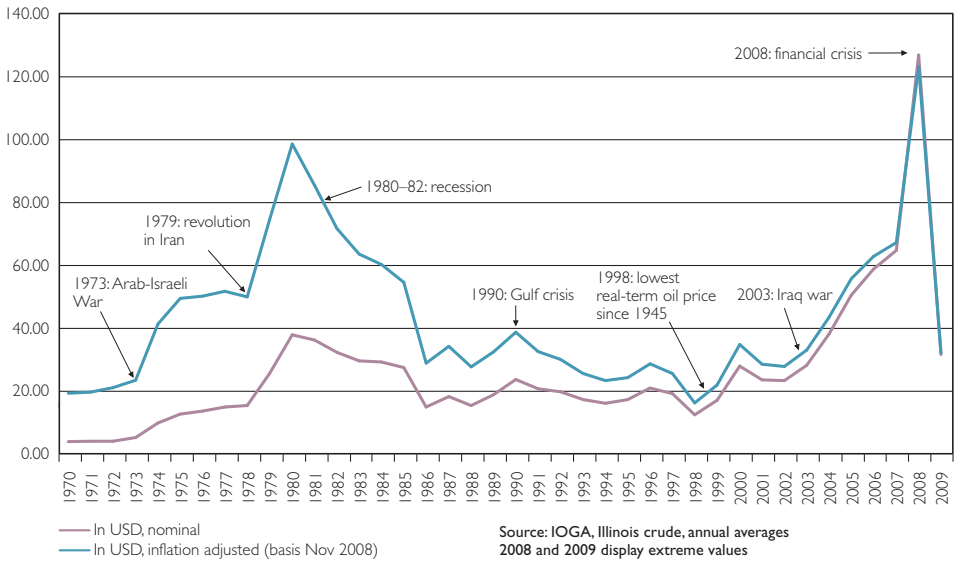
Since the beginning of the 1970s there have been huge fluctuations, both up and down, in the price of oil. Adjusted for inflation, in 1998 the price even reached an all-time low. The price of oil is evidently dependent on the international political and economic situation. In the 1973 Arab-Israeli War, the Arabs resorted to the weapon of oil, massively cutting back production and causing the price to rocket from below USD 3 (nominal) to over USD 12. The second energy crisis in 1979/80, a result of the revolution in Iran and the war between Iran and Iraq, then sent the price of oil over USD 35 (nominal), which in inflation-adjusted terms is around the price paid at the beginning of 2009. But the subsequent slump in the global economy, where the price of oil plummeted to below USD 15 (nominal), also harmed oil exporters. Iraq's invasion of Kuwait in 1990 resulted in only a moderate increase in prices. More recently, the Asia crisis of 1997/98 sent the oil price to below USD 12 (nominal).

So the price of oil is volatile, and in turn this volatility has a price, because it makes investment in the oil infrastructure, from exploration and production to transportation via pipelines and tankers, expensive and risky. In 2008/09 there was a huge decline of almost 20% in oil infrastructure investment. Not only was the outlook uncertain because of the financial and economic crisis, but access to capital had become difficult and expensive. According to model calculations by the IEA, one consequence is that we can expect to see the price of oil rise very rapidly once the global economy picks up again. Currently the world's oil producers are running at around 6% below capacity. But this does not offer any protection against a rapid increase in the price of crude. Producers, in other words OPEC, will initially want to boost their revenues by means of higher prices rather than by stepping up deliveries. Another factor is that in the long term, efforts to save energy and find substitutes for oil in industrialized countries will not be sufficient to offset rising demand in rapidly growing emerging nations. According to the IEA, 90% of the growth in primary energy demand will originate from non-OECD countries, with more than 50% attributable to China and India. The current increase in mergers and acquisitions in the oil sector is an indication of the energy boom to come.

Higher oil prices will change the structure of energy supply. It will be possible to use new technology that up till now has been too expensive to access oil reserves that had long been abandoned. As the price increases, extracting oil from unconventional sources such as heavy oil deposits, tar sands and oil shale reserves will be an increasingly attractive proposition. Most of these reserves are in North America.

Counting unconventional reserves, the world still has plenty of fossil fuel left. So far the human race has consumed fossil fuels equivalent to around

Oil prices from 1970 to 2009



Source: IOGA, Illinois crude, annual averages
2008 and 2009 display extreme values

1,000 billion barrels of oil. The IEA estimates global oil and gas reserves at more than 20,000 billion barrels of oil equivalent. A quarter to a half of this could be exploited using current technology, but as the technology advances the IEA says this figure could also increase. Even so, from a purely environmental point of view the world cannot afford to steadily burn up all its available oil, gas and coal resources. Given the growing demand for energy, there is enormous investment required. The IEA estimates that the investment requirements will come to around 1.4% of global national product up to 2030, and the figure will be even higher if the "green" 450 PS 2030 scenario is targeted. On the face of it these are huge sums, but viewing them in light of the 2.5% or so of global national product spent on the military every year puts them into perspective.

No new energy world order in sight

Tackling the problem of oil price volatility would require much more concerted efforts on the energy front. But there are no signs of this type of collaboration at present. There is no "World Energy Organization" along the lines of the World Trade Organization (WTO) that could create clear rules and stability. The International Energy Agency is responsible for monitoring, advising and researching under the auspices of the OECD. But major oil producers and consumers, notably China and India, are famously not members of the OECD club. Attempts by the European Union to get Russia to agree to transparent rules laid down in an energy charter have so far come to nothing. A forum for energy stability analogous to the forum for financial stability would be desirable, but for the moment it remains a purely academic vision. So the world will have to live with a situation where the oil price trends upwards but, most importantly, is subject to heavy volatility.

Dr. Dieter Ruloff,
Professor of International Relations at the University of Zurich

2009 proven oil reserves			2007–08 oil exports			2008 oil consumption		
Rank	Country	Billion barrels	Rank	Country	Barrels per day	Rank	Country	Barrels per day
1	Saudi Arabia	266.70	1	Saudi Arabia	8,728,000	1	USA	19,500,000
2	Canada	178.10	2	Russia	6,845,000	2	China	7,850,000
3	Iran	136.20	3	Iran	2,719,000	3	Japan	4,785,000
4	Iraq	115.00	4	UAE	2,700,000	4	India	2,940,000
5	Kuwait	104.00	5	Canada	2,421,000	5	Russia	2,900,000
6	Venezuela	99.38	6	Norway	2,383,000	6	Germany	2,569,000
7	UAE	97.80	7	Kuwait	2,349,000	7	Brazil	2,520,000
8	Russia	79.00	8	Nigeria	2,327,000	8	Saudi Arabia	2,380,000
9	Libya	43.66	9	Venezuela	2,182,000	9	Canada	2,260,000
10	Nigeria	36.22	10	Mexico	1,986,000	10	South Korea	2,175,000
11	Kazakhstan	30.00	11	Algeria	1,891,000	11	Mexico	2,128,000
12	USA	21.32	12	Iraq	1,830,000	12	France	1,986,000
13	China	16.00	13	Netherlands	1,647,000	13	Iran	1,755,000
14	Qatar	15.21	14	UK	1,602,000	14	UK	1,710,000
15	Brazil	12.62	15	Libya	1,542,000	15	Italy	1,639,000
16	Algeria	12.20	16	USA	1,433,000	16	Indonesia	1,564,000
17	Mexico	10.50	17	Angola	1,407,000	17	Spain	1,562,000
18	Angola	9.04	18	Kazakhstan	1,313,000	18	Netherlands	962,900
19	Azerbaijan	7.00	19	Singapore	1,289,000	19	Taiwan	959,000
20	Norway	6.68	20	Qatar	1,043,000	20	Australia	953,700

Source: CIA World Factbook and IEA

Reuss Private

Reuss Private AG
Haus zur Bruggmühle

Wohlerstrasse 2
CH-5620 Bremgarten

Phone +41 56 618 44 00
Fax +41 56 618 44 09

info@reussprivate.com
www.reussprivate.com